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Notice of Allowability

Application No.

09/441,458

Examiner

Nabil M El-Hady

Applicant(s)

MURPHY ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/9/2004.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☒ The drawings filed on 17 November 1999 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/00, 10/02, 5/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/8/2004
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



EXAMINER'S AMENDMENT

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed as amendment filed January 21, 2004 has been entered.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeffery A. Berkowitz, Reg. No. 36,743 on August 9, 2004.

1. The application has been amended as follows:

A. In the specification:

I. Replace all the section under the title "Related Applications" to read:

-- The following applications are relied upon and are hereby incorporated by reference in this application:

Art Unit: 2154

U.S. Provisional Application No. 60/138,680, entitled "Jini™ Technology Helper Utilities and Services," filed 6/14/1999 .

U.S. Patent Application No. 09/044,931 entitled "Dynamic Lookup Service in a Distributed Systems," filed on March 20, 1998, now US Patent No. 6185611 issued February 6, 2001.

U.S. Patent Application No. 09/044,939, entitled "Apparatus and Method for Providing Downloadable Code for Use in Communicating with a Device in a Distributed System," filed on March 20, 1998, now US Patent No. 6560656 issued May 6, 2003.

U.S. Patent Application No. 09/030 840, entitled "Method and Apparatus for Dynamic Distributed Computing Over a Network," filed on February 26, 1998, now US Patent No. 6446070 issued September 3, 2002. --

B. In the claims:

I. In claim 1, the claim is amended to read:

1. (Currently amended) A method in a data processing system having a plurality of lookup services each having associated services, the method comprising the steps of:

receiving a request by a lookup discovery service to identify a lookup service from among the plurality of lookup services with which a service of interest to a client is associated, the request including a service characteristic of interest to the client and a time period;

locating, during the time period, by the lookup discovery service, said lookup service using the service characteristic of interest to the client;

returning locator information that facilitates access to said lookup service of interest to the client; and

Art Unit: 2154

when a lookup service is located, transmitting the request to the located lookup service.

II. In claim 6, the claim is amended to read:

6. (Currently amended) A method in a data processing system having a client, a lookup discovery service and a plurality of lookup services each with associated characteristics and services, the method comprising the steps of:

transmitting a request by a client to a lookup discovery service to return locator information for a desired lookup service from among the plurality of lookup services with which a service of interest to the client is associated, the request including a characteristic of the desired lookup service;

receiving the request by the lookup discovery service;

locating, as a function of the characteristic of the desired lookup service, a lookup service; and

transmitting the request to the located lookup service.

III. In claim 7, the claim is amended to read:

7. (Currently amended) The method of claim 6 further comprising the steps of:

receiving the locator information by the lookup discovery service; and

transmitting the locator information to the client.

IV. In claim 9, the claim is amended to read :

9. (Currently amended) The method of claim 6, wherein the second transmitting step is further comprised of the step of transmitting a multicast packet from the lookup

Art Unit: 2154

discovery service to the plurality of lookup services.

V. In claim 13, the claim is amended to read:

13. (Currently amended) A method in a data processing system having a client computer, a lookup discovery service for accessing associated lookup services, and a lookup service containing service stubs for accessing associated services, the method comprising the steps of:

transmitting a request by a client to provide locator information for a lookup service, the request including a characteristic of a desired lookup service of interest to the client,

receiving the request by the lookup discovery service;

locating, by the lookup discovery service, a lookup service matching the characteristic of the desired lookup service of interest to the client until a time period previously specified by the client expires;

transmitting the request to the located lookup service of interest to the client;

returning the locator information of the lookup service of interest to the client; and

transmitting said locator information from the lookup discovery service to the client.

VI. In claim 17, the claim is amended to read:

17. (Currently amended) A distributed system with a plurality of services, comprising:
a first server computer having a memory containing a lookup discovery service for facilitating access to at least a second server computer;

a plurality of second server computers each having a memory containing a lookup service having stubs for facilitating access to a plurality of services and having a processor for running the lookup service; and

Art Unit: 2154

a client computer having a memory containing a program that transmits a request to the first server computer, the request including a characteristic of lookup services that interest the program and a time period, and having a processor for running the program;

wherein the first server receives the request from the client computer, searches for lookup services that match the characteristic during the time period, and then transmits the request to at least one of the plurality of second server computers that include lookup services found to match the characteristic.

VII. In claim 18, the claim is amended to read:

18. (Currently amended) A system having a first computer with a client and a plurality of second computers each with a lookup service containing stubs used for accessing associated services and a third computer with a lookup discovery service containing lookup service locator information for facilitating access to a plurality of lookup services, the system comprising:

means for sending a request by the client to the lookup discovery service for access to a service meeting criteria specified in the request;

means for receiving the request by the lookup discovery service;

means for searching for lookup services with associated service that meets the criteria;

means for transmitting the client request to at least one of the lookup services with associated service that meets the criteria;

means for returning locator information corresponding to the lookup services with associated service that meets the criteria; and

means for receiving locator information by the client.

VIII. In claim 19, the claim is amended to read:

Art Unit: 2154

19. (Currently amended) A computer-readable medium containing instructions for controlling a data processing system to perform a method for locating a lookup service with associated characteristics and services, the method comprising the following steps:

receiving a request by a lookup discovery service to return locator information that facilitates access to a lookup service of interest to a client from among a plurality of lookup services, the request including a characteristic of a lookup service that interests the client,

repeatedly searching, by the lookup discovery service, for lookup services that match the characteristic of the lookup service that interests the client; and

when a lookup service that matches the characteristic is located, transmitting the request to the located lookup service.

IX. In claim 24, the claim is amended to read:

24. (Currently amended) A computer-readable medium containing instructions for controlling a data processing system to perform a method for accessing lookup services each having associated characteristics and services, the method comprising the steps of:

transmitting a request by a client to a lookup discovery service to return locator information for a desired lookup service from among a plurality of lookup services, the request including a characteristic of the desired lookup service;

receiving the request by the lookup discovery server service;

searching, by the lookup discovery service, until a lookup service matching the characteristic is found, and

transmitting the request to the lookup service matching the characteristic.

2. Pursuant to MPEP 606.01, the title has been changed to read:

Art Unit: 2154

-- LOOKUP DISCOVERY SERVICE IN A DISTRIBUTED SYSTEM HAVING A
PLURALITY OF LOOKUP SERVICES EACH WITH ASSOCIATED
CHARACTERISTICS AND SERVICES --.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M El-Hady whose telephone number is (703) 308-7990. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 9, 2004



Nabil El-Hady, Ph.D, M.B.A.
Primary Patent Examiner
Art Unit 2154